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(54) THUMB ACTUATED X-Y INPUT DEVICE

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(57) **ABSTRACT**

Various x-y input devices are disclosed that are adapted to allow a user to hold and operate the input device with a stress-reducing, open grip posture with the thumb pointing forward and on top of the device. One preferred embodiment discloses an input device for a computer comprising an x-y input sensor (such as a touchpad) positioned perpendicular to the thumb such that the user provides input with the thumb tip by using pivotal movement of the thumb. Various stress-reducing zero force touch switches are disclosed including zero force touch switches that can be adjusted to accommodate variations in user finger length. The mode of x-y cursor control can be altered through the use of x-y input sensor perimeter inputs. One preferred embodiment discloses a thumb actuated scroll select touch switch that alters the response to actuation of the finger actuated zero force touch switches from mouse button input to scroll wheel input. A unique fin-shaped feature of one preferred embodiment stabilizes the device within the relaxed hand and adapts the device to fit a range of user hand sizes.